

Claims

1. A device for damping pressure surges in a fluid, the device having a housing (10) and a piston (14) displaceable longitudinally against the pretensioning force of a spring-type accumulator (12), characterized in that the piston (14) operates in conjunction with another piston (24) which is guided so as to be displaceable longitudinally in a connecting piece (26) of the housing (10), and in that during operation of the device the piston (14) exerts a compressive force on the other piston (24) in any displaced position of the latter.
2. The device as claimed in claim 1, wherein the diameter of the piston (14) is several times greater than the diameter of the other piston (24).
3. The device as claimed in claim 1 or 2, wherein the other piston (24) is configured as a stamp and is guided by way of at least one anti-loss device (34) in a through opening in the housing (36) of the connecting piece (26).
4. The device as claimed in claim 3, wherein the other piston (24) is highly machined, lapped in particular, on the outer circumference side and wherein a gap (38) of the thickness of the metal is obtained at least between parts of the external circumference and of the other piston (24) on the inner wall of the housing opening (36).
5. The device as claimed in one of claims 1 to 4, wherein the other piston (24) is provided on the outer circumference side with annular or lubricating grooves (40).
6. The device as claimed in one of claims 1 to 5, wherein a leakage opening (46) made in the housing (10) communicates with the fluid space (42) between the pistons (14, 24).

7. The device as claimed in one of claims 1 to 6, wherein at least one helical spring configured as a pressure spring and/or a pressure gas serves as spring-type accumulator (12).
8. The device as claimed in claim 7, wherein the pressure spring (12) extends between the piston (14) and a cover element (50) inside the housing.
9. The device as claimed in one of claims 1 to 8, wherein the cover element (50) is in the form of a retaining plate (52) which is retained in the housing (10) by safety means, a retaining ring (54) in particular, or wherein the cover element (50) consists of a screw cap (56) which may be screwed onto the housing (10) on the outer circumference side by way of external threading (58) of the housing (10).
10. The device as claimed in one of claims 1 to 9, wherein the connecting piece (26) of the housing (10) in which the other piston (24) guided is of an external diameter reduced in comparison to the external diameter of the housing (10).